

Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1. (Currently amended) A traveling transmission for a working vehicle, comprising an auxiliary transmission having at least two speed stages, which is interposed between a main clutch and a multi-speed-stage mechanical transmission, characterized in that:

wherein said auxiliary transmission is configured such that its power transmission is cut out ~~interlockingly with after said main clutch is completely disengaged the during a [[the]] disengagement operation of said main clutch after said main clutch is completely disengaged, and its power transmission is restored during the engagement operation of said main clutch before said main clutch starts a power transmission.~~

2. (Currently amended) A traveling transmission according to claim 1, characterized in that:

wherein the power transmission of the said auxiliary transmission is performed or is cut out based on an operating quantity of an operating member for engaging or disengaging said main clutch said mechanical transmission is of a gear continuously engaging type provided with a synchronous clutch.

3. (Currently amended) A traveling transmission according to claim 1 [[or 2]], characterized in that:

wherein said auxiliary transmission is configured as a high-low speed selector device for obtaining the two speed stages, including a hydraulic-operated first hydraulic clutch and a spring-operated second hydraulic clutch,[[; and]]

wherein said auxiliary transmission is such configured as to ~~be drained~~ have operating oil ~~drained~~ from said first hydraulic clutch and, ~~also,~~ to ~~be supplied~~ have the operating oil supplied to said second hydraulic clutch, thereby cutting out [[said]] the power transmission of said auxiliary transmission,[[;]]

wherein said second hydraulic clutch includes:

a plurality of frictional elements;
a clutch cylinder having a pressure receiving surface at its internal end
surface and having a plurality of cutout holes cut out on its free end side, the pressure
receiving surface contacting with a frictional element at a foremost end of the plurality of
frictional elements when in a clutch engagement state;

a piston accommodated inside of the clutch cylinder so as to release an
engagement between the frictional elements by a hydraulic effect;

an operating plate engaging with the piston in a slidable manner in the
clutch axial direction and in a non-rotatable manner relative to the clutch cylinder;

a pressing plate spaced apart from the operating plate so as to hold the
plurality of frictional elements between the operating plate and the pressing plate, the
pressing plate being connected to the operating plate so as to be moved integrally with
the operating plate;

a spring receiving ring connected to the free end of the clutch cylinder;
and

a disk spring disposed between the pressing plate and the spring receiving ring,

wherein said operating plate includes a ring-like body engaging with the piston, and a fitting projection extending outward in the radial direction from the body, the fitting projection being fitted into a cutout hole of the plurality of cutout holes formed at the clutch cylinder,

wherein said pressing plate includes a ring-like body engaging with the disk spring, and a fitting projection extending outward in the radial direction from the body, the fitting projection corresponding to the fitting projection formed at the operating plate, and

wherein said operating plate and said pressing plate are connected interlockingly with each other via an interlocking rod disposed at the fitting projection of the operating plate and the fitting projection of the pressing plate.

4. (Currently amended) A traveling transmission according to claim 3 [[1 or 2]], characterized in that:

wherein a frictional element of the plurality of frictional elements is supported by the clutch cylinder, wherein said frictional element includes a ring-like body frictionally engaging with an adjacent frictional element of the plurality of frictional elements, and a fitting projection extending outward in the radial direction from the body, the fitting projection being fitted into the cutout hole formed at the clutch cylinder.

said auxiliary transmission is configured as a high-low speed selector device including a hydraulic operated first hydraulic clutch, a spring operated second hydraulic

~~clutch and a direction switching valve for supplying/discharging operating oil to/from the first and second hydraulic clutches; and~~

~~said direction switching valve is such configured as to be drained the operating oil from said first hydraulic clutch and, also, to be supplied the operating oil to said second hydraulic clutch, interlockingly with the disengagement operation of said main clutch.~~

5. (Currently amended) A traveling transmission according to claim [[3 or]] 4, further comprising an operating member for disengaging said main clutch, and a controller for controlling said direction switching valve characterized in that:

wherein said interlocking rod has small-diameter portions formed at both ends and fitted into fitting holes formed at the fitting projections of the operating plate and the pressing plate, and a large-diameter portion extending between the small-diameter portions, and

wherein said fitting projection of said frictional element has a groove opened outward in the radial direction, said groove being fitted around the large-diameter portion of said interlocking rod.

~~said controller is such configured as to move said direction switching valve to a position at which the operating oil is drained from said first hydraulic clutch and, also, the operating oil is supplied to said second hydraulic clutch, interlockingly with the operation of said operating member.~~

6. (Currently amended) A traveling transmission according to claim 3, any one of claims 1 to 5, further comprising an operating member for operating said main clutch, characterized in that:

wherein said first hydraulic clutch includes:

a piston disposed on a side opposite to the piston of the second hydraulic clutch with reference to a central partition wall of the clutch cylinder;

a plurality of frictional elements frictionally engaged by the piston;

a pressure receiving plate disposed on a side opposite to the piston while holding the frictional elements therebetween;

a return spring for urging the piston in a direction remote from the frictional elements; and

a check valve for preventing simultaneous engagement of the first and second hydraulic clutches,

wherein said check valve includes an axial hole having a base end opened to a clutch axial end of the cutout hole formed in the clutch cylinder and a tip end ended inside of the clutch cylinder, a hollow sleeve fitted into the axial hole, a spring interposed between the tip end of the axial hole and an inner end of the sleeve, and a ball seated at a valve seat formed at the inner end of the sleeve by the spring,

wherein said axial hole is designed to communicate with a disposing space for the piston of the first hydraulic clutch via a groove formed at the clutch cylinder, and

wherein said groove allows the inside of the axial hole and the disposing space to communicate with each other when the piston of the first hydraulic clutch slides toward the frictional elements by a hydraulic effect, and is closed by the piston of the

first hydraulic clutch when the piston of the first hydraulic clutch is most separated from the frictional elements by the urging force of the return spring after the hydraulic effect exerted on the piston is stopped.

said auxiliary transmission is configured such that the power transmission is cut out after said main clutch is completely disengaged during the disengagement operation of the main clutch and, also, the power transmission is restored before said main clutch starts the power transmission during the engagement operation of the main clutch.

7. (Currently amended) A traveling transmission according to claim 6, characterized in that:

wherein an oil relief groove is formed at the sleeve for allowing a hollow portion and a peripheral surface of the sleeve to communicate with each other, and

wherein a second oil relief groove is formed at the clutch cylinder, the second oil relief groove communicating with the oil relief groove formed at the sleeve.

the power transmission is performed or is cut out in said auxiliary transmission based on the operating quantity of the operating member for engaging or disengaging said main clutch.